

PRELIMINARY STATISTICAL SUMMARY

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This preliminary report summarizes data on crude nonfuel mineral production¹ for the United States, its island possessions, and the Commonwealth of Puerto Rico.

Although crude mineral production may be measured at any of several stages of extraction and processing, the stage of measurement used in this annual report is what is termed "mine output." This term refers to minerals or ores in the form in which they are first extracted from the ground, but customarily may include the output from auxiliary processing at or near the mines.

Because of inadequacies in the statistics available, some series

deviate from the foregoing definition. For copper, gold, lead, silver, tin, and zinc, the quantities shown are recorded on a mine basis (as the recoverable content of ore sold or treated). However, the values assigned to the quantities are based on the average selling price of refined metal, not the mine value. Mercury is measured as recovered metal and valued at the average New York price for the metal. Values shown are in current dollars, with no adjustments made to compensate for changes in the purchasing power of the dollar.

The preliminary total value of all nonfuel mineral production in the United States increased more than 2% to \$39.6 billion in 1997, with metals decreasing less than 1% to \$12.9 billion and industrial minerals increasing almost 3.6% to \$26.7 billion over that of 1996. Ten of the mineral commodities produced in the United States in 1997 had an individual total production value greater than \$1 billion. These commodities, in descending order, were stone (crushed), cement (portland), copper, sand and gravel (construction), gold, iron ore, lime, clays (kaolin), phosphate rock, and zinc. They composed almost 81% of the U.S. total production. (*See table 1.*)

In 1997, 11 States produced nonfuel mineral commodities with individual total production values of greater than \$1 billion. These States, in descending order, were Arizona, Nevada, California, Georgia, Utah, Florida, Texas, Minnesota, Michigan, Missouri, and Pennsylvania. They composed almost 56% of the U.S. total production. (*See table 4.*)

¹The terms "nonfuel mineral production" and related "values" encompass variations in meaning, depending on the minerals or mineral products. Production may be measured by mine shipments, mineral commodity sales, or marketable production (including consumption by producers) as is applicable to the individual mineral commodity.

All 1997 USGS mineral production data published in this chapter are estimates as of June 1998. For some commodities (for example, construction sand and gravel, crushed stone, and portland cement), estimates are updated periodically. To obtain the most current information, please contact the appropriate USGS mineral commodity specialist. Call MINES FaxBack at (703) 648-4999 from a fax machine with a touch-tone handset, and request Document # 1000 for a telephone listing of all mineral commodity specialists, or call USGS information at (703) 648-4000 for the specialist's name and number. This telephone listing may also be retrieved over the Internet at <http://minerals.er.usgs.gov/minerals/contacts/comdir.html>. All Mineral Industry Surveys—mineral commodity, State, and country—also may be retrieved by way of MINES FaxBack or over the Internet at <http://minerals.er.usgs.gov/minerals/pubs/>.

TABLE 1
NONFUEL RAW MINERAL PRODUCTION 1/ IN THE UNITED STATES 2/

(Thousand metric tons and thousand dollars unless otherwise specified)

Mineral	Quantity	1995		1996		1997 p/	
		Value		Value		Quantity	Value
Metals:							
Antimony 3/	metric tons	262	W	242	W	W	W
Beryllium concentrates	do.	5,040	6	5,260	6	5,300	6
Copper 4/		1,850	5,640,000	1,920	4,610,000	1,920	4,570,000
Gold 4/	kilograms	317,000	3,950,000	321,000 r/	4,030,000 r/	341,000	3,720,000
Iron ore, usable		61,100	1,730,000	62,200	1,770,000	61,600	1,750,000
Iron oxide pigments, crude	metric tons	51,700	6,720	44,700	6,990	46,000	7,240
Lead 4/	do.	386,000	359,000	426,000	459,000	440,000	456,000
Magnesium metal	do.	142,000	476,000	133,000	455,000	120,000	378,000
Molybdenum 3/	do.	W	W	57,900	456,000	58,500	467,000
Nickel ore	do.	1,560	W	1,330	W	-- 5/	--
Palladium metal	kilograms	5,260	22,000	6,100	25,500	8,340	46,700
Platinum	do.	1,590	20,800	1,840	23,500	2,500	31,700
Rare-earth metal concentrates	metric tons	22,200	W	20,400	W	20,000	W
Silver 4/	do.	1,560	259,000	1,570	263,000	1,600	224,000
Zinc 4/	do.	614,000	756,000	600,000	676,000	607,000	1,080,000
Combined value of bauxite, manganeseiferous ore, mercury, titanium concentrates, tungsten, vanadium, zircon concentrates and values indicated by symbol W		XX	812,000	XX	190,000	XX	188,000
Total		XX	14,000,000	XX	13,000,000 r/	XX	12,900,000
Industrial minerals:							
Asbestos	metric tons	10,200	W	9,550	W	9,070	W
Barite		543	10,400	662	14,700	700	17,500
Boron minerals	metric tons	1,190,000	560,000	1,150,000	519,000	622,000 6/	503,000
Bromine	do.	218,000	186,000	227,000	150,000	250,000	247,000
Cement:							
Masonry		3,600	307,000	3,470	321,000 e/	3,540	334,000 e/
Portland		73,300	4,920,000	75,800	5,310,000 e/	77,300	5,520,000 e/
Clays:							
Ball		993	45,500	973	43,100	1,030	50,700
Bentonite		3,820	138,000	3,740	134,000	3,780	133,000
Common		25,600	151,000	26,200	144,000	26,400	164,000
Fire		583	12,800	505	10,700	403	9,990
Fuller's earth		2,640	269,000	2,600	278,000	2,570	249,000
Kaolin		9,480	1,110,000	9,120	1,100,000	8,990	1,110,000
Diatomite		687	171,000	698	176,000	705	178,000
Feldspar	metric tons	882,000	37,400	890,000	39,400	930,000	41,900
Fluorspar	do.	51,400	W	8,180	W	NA	NA
Garnet, industrial	do.	53,000	9,690	68,200	10,200	70,800	7,580
Gemstones, natural		NA	48,700	NA	43,600	NA	38,200
Gypsum, crude		16,600	121,000	17,500	124,000	17,000	121,000
Helium:							
Crude	million cubic meters	36	32,100	37	33,100	38	33,900
Grade-A	do.	99	196,000	97	193,000	100	198,000
Iodine, crude	metric tons	1,220	12,500	1,270	14,600	1,330	24,000
Lime		18,500	1,100,000	19,100	1,140,000	19,300	1,150,000
Mica, crude		108	5,630	97	7,820	92	8,430
Peat		660	17,000	640	18,500	617	15,900
Perlite, crude	metric tons	700,000	21,600	684,000	21,300	703,000	22,400
Phosphate rock, marketable		43,500	947,000	45,400	1,060,000	46,300	1,090,000
Potash, K ₂ O		2,880	284,000	2,960	299,000	2,990	318,000
Pumice and pumicite	metric tons	529,000	13,200	612,000	14,800	538,000	14,200
Salt		40,800	1,000,000	42,900	1,060,000	41,400	958,000
Sand and gravel:							
Construction		910,000	3,910,000	914,000	4,000,000	961,000	4,290,000
Industrial		28,200	502,000	27,800	497,000	28,300	512,000
Silica stone 7/	metric tons	374	W	410	3,810	NA	NA
Sodium compounds:							
Soda ash		10,100	829,000	10,200	926,000	10,400	822,000
Sodium sulfate, natural		327	27,700	306	27,200	320	28,800
Stone, crushed 8/		1,260,000	6,750,000	1,330,000	7,180,000	1,390,000	7,720,000
Sulfur, Frasch		3,070	207,000	W	W	W	W

See footnotes at end of table.

TABLE 1--Continued
NONFUEL RAW MINERAL PRODUCTION 1/ IN THE UNITED STATES 2/

(Thousand metric tons and thousand dollars unless otherwise specified)

Mineral		1995		1996		1997 p/	
		Quantity	Value	Quantity	Value	Quantity	Value
Tripoli	metric tons	80,100	10,500	79,600	18,400	NA	NA
Vermiculite, crude	do.	171,000	W	W	W	W	W
Zeolites	do.	46,800	NA	39,300	NA	NA	NA
Combined value of brucite, emery, greensand marl, kyanite, lithium minerals, magnesite, magnesium compounds, olivine, staurolite, stone (dimension), talc and pyrophyllite, wollastonite and values indicated by symbol W		XX	626,000	XX	818,000	XX	743,000
Total		XX	24,600,000	XX	25,800,000	XX	26,700,000
Grand total		XX	38,600,000	XX	38,700,000	XX	39,600,000

e/ Estimated. p/ Preliminary. r/ Revised. NA Not available. W Withheld to avoid disclosing company proprietary data; value included with "Combined value." XX Not applicable.

1/ Production as measured by mine shipments, sales, or marketable production (including consumption by producers).

2/ Data are rounded to three significant digits; may not add to totals shown.

3/ Content of ore and concentrate.

4/ Recoverable content of ores, etc.

5/ Quantity of local ore fed to smelter after rejection of lower grade material. The Nickel Mountain Mine reportedly was idle all of 1997 because of disappointing prices for nickel ore. However, the smelter operated at full capacity. The smelter normally uses lateritic ore imported from New Caledonia in addition to lateritic ore mined on Nickel Mountain. In a normal year, the value reflects the grade of the local ore, the projected average unit customs value for competing ore imported from New Caledonia, and the projected average reported by the London Metal Exchange (\$6,931 per metric ton nickel in 1997).

6/ Weight reported as B₂O₃ and is not comparable to prior years.

7/ Includes grindstones, pulpstones, and sharpening stones; excludes mill liners and grinding pebbles.

8/ Excludes abrasive stone and bituminous limestone and sandstone; all included elsewhere in table.

TABLE 2
NONFUEL RAW MINERALS PRODUCED IN THE UNITED STATES, BY COMMODITY AND STATES IN 1997 p/
(Based on quantity unless otherwise noted)

Mineral	Principal States	Other States
Antimony 1/	ID	
Asbestos	CA	
Barite	NV, GA, MO, TN	
Beryllium concentrate	UT	
Boron minerals	CA	
Bromine	AR and MI	
Brucite	NV	
Cement:		
Masonry	FL, IN, AL, SC, PA	AZ, AR, CA, CO, GA, HI, ID, IA, KS, KY, ME, MD, MI, MO, MT, NE, NY, OH, OK, SD, TN, TX, UT, VA, WA, WV.
Portland	CA, TX, PA, MI, MO	All other States except AK, CT, DE, LA, MA, MN, NH, NJ, NC, ND, RI, VT, WI.
Clays:		
Ball	TN, TX, KY, MS, IN	MO.
Bentonite	WY, AL, MT, MS, CA	AZ, CO, NV, OR, UT.
Common	AL, NC, TX, OH, GA	All other States except AK, DE, HI, ID, NV, NH, RI, VT, WI.
Fire	MO, OH, AL, CA, AR	MT and NM.
Fuller's earth	GA, FL, MS, IL, MO	CA, KS, NV, TN, TX, VA.
Kaolin	GA, AL, SC, AR, CA	CO, FL, NV, NC, PA, TX.
Copper 1/	AZ, UT, NM, NV, MT	AK, ID, MO, WI.
Diatomite	CA, NV, OR, WA	
Feldspar	NC, CA, VA, GA, OK	ID and SD.
Garnet, industrial	ID, NY, MT	
Gemstones, natural 2/	TN, KY, AZ, AR, AL	All other States.
Gold 1/	NV, UT, CA, SD, AK	AZ, CO, ID, MT, NM, SC, WA, WI.
Greensand marl	NJ	
Gypsum, crude	OK, TX, IA, MI, NV	AZ, AR, CA, CO, IN, KS, LA, NM, NY, OH, SD, UT, VA, WA, WY.
Helium:		
Crude	KS, TX, OK	
Grade-A	KS, WY, TX, UT, CO	OK.
Iodine, crude	OK	
Iron ore, usable	MN, MI, MO, NM, SD	CA and MT.
Iron oxide pigments, crude	MI, MO, GA, VA, AL	AZ.

See footnotes at end of table.

TABLE 2--Continued
NONFUEL RAW MINERALS PRODUCED IN THE UNITED STATES, BY COMMODITY AND STATES IN 1997 p/

(Based on quantity unless otherwise noted)

Mineral	Principal States	Other States
Kyanite	VA	
Lead 1/	MO, AK, ID, MT, CO	NY and TN.
Lime	MO, OH, KY, AL, PA	All other States except AK, CT, DE, FL, GA, HI, KS, ME, MD, MS, NH, NJ, NM, NY, NC, RI, SC, VT.
Lithium minerals	NC and NV	
Magnesite	NV	
Magnesium compounds	MI, CA, FL, UT, DE	TX.
Magnesium metal	TX, UT, WA	
Mercury	NV, CA, UT	
Mica, crude	NC, NM, GA, SD, SC	
Molybdenum	AZ, CO, UT, ID, MT	NM.
Nickel ore	OR	
Olivine	NC and WA	
Palladium metal	MT	
Peat	FL, MI, IL, IN, IA	CO, ME, MA, MN, MT, NJ, NY, NC, ND, OH, PA, SC, WA, WV, WI.
Perlite, crude	NM, AZ, CA, NV, ID	
Phosphate rock, marketable	FL, ID, NC, UT	
Platinum metal	MT	
Potash, K ₂ O	NM, UT, MI	
Pumice and pumicite	OR, NM, CA, ID, AZ	KS.
Rare-earth metal concentrates	CA	
Salt	LA, TX, OH, NY, KS	AL, AZ, CA, MI, NV, NM, OK, UT, WV.
Sand and gravel:		
Construction	CA, MI, TX, OH, MN	All other States except HI.
Industrial	IL, MI, NC, CA, WI	All other States except AK, CT, DE, HI, KY, ME, NH, NM, OR, SD, UT, VT, WY.
Silver 1/	NV, ID, AK, AZ, UT	CA, CO, MO, MT, NM, NY, SC, SD, WI.
Sodium compounds:		
Soda ash	WY and CA	
Sodium sulfate, natural	CA and TX	
Staurolite	FL	
Stone:		
Crushed	PA, TX, MO, FL, IL	All other States except DE and ND.
Dimension	IN, WI, VT, GA, TX	All other States except AK, DE, FL, HI, IL, IA, KY, LA, MS, NE, NV, NJ, ND, OR, RI, WY.
Sulfur, Frasch	LA and TX	
Talc and pyrophyllite	MT, TX, VT, NY, NC	CA, GA, OR, VA.
Titanium concentrates:		
Ilmenite	FL and CA	
Rutile	FL	
Vanadium 1/	ID	
Vermiculite, crude	SC and VA	
Wollastonite	NY	
Zinc 1/	AK, TN, NY, MO, MT	CO, ID, IL.
Zircon concentrates	FL	

p/ Preliminary.

1/ Content of ores, etc.

2/ Principal producing States based on value.

3/ Includes grindstones, pulpstomes, and sharpening stones; excludes mill liners and grinding pebbles.

TABLE 3
VALUE OF NONFUEL RAW MINERAL PRODUCTION IN THE UNITED STATES AND PRINCIPAL NONFUEL MINERALS PRODUCED IN 1997 p/ 1/

State	Value (thousands)	Rank	Percent of U.S. total	Principal minerals, in order of value
Alabama	\$805,000	18	2.03	Cement (portland), stone (crushed), lime, sand and gravel (construction), cement (masonry).
Alaska	942,000	15	2.38	Zinc, gold, lead, sand and gravel (construction), silver.
Arizona	3,520,000	1	8.88	Copper, sand and gravel (construction), molybdenum, lime.
Arkansas	535,000	25	1.35	Bromine, stone (crushed), cement (portland), sand and gravel (construction), sand and gravel (industrial).
California	2,810,000	3	7.10	Cement (portland), sand and gravel (construction), Boron (B ₂ O ₃), stone (crushed), gold.
Colorado	536,000	24	1.35	Sand and gravel (construction), cement (portland), gold, molybdenum, stone (crushed).
Connecticut 2/	64,800	46	0.16	Stone (crushed), sand and gravel (construction), stone (dimension), clays (common), gemstones.
Delaware 2/	6,490	50	0.02	Magnesium compounds, sand and gravel (construction), gemstones.
Florida	1,740,000	6	4.41	Phosphate rock, stone (crushed), cement (portland), sand and gravel (construction), titanium (ilmenite).
Georgia	1,770,000	4	4.47	Clays (kaolin), stone (crushed), cement (portland), clays (fuller's earth), sand and gravel (construction).
Hawaii 2/	99,900	43	0.25	Stone (crushed), cement (portland), cement (masonry), gemstones.
Idaho	477,000	30	1.20	Phosphate rock, gold, sand and gravel (construction), molybdenum, silver.
Illinois	880,000	17	2.22	Stone (crushed), cement (portland), sand and gravel (construction), sand and gravel (industrial), lime.
Indiana	640,000	21	1.62	Stone (crushed), cement (portland), sand and gravel (construction), lime, cement (masonry).
Iowa	493,000	29	1.25	Stone (crushed), cement (portland), sand and gravel (construction), gypsum (crude), lime.
Kansas	547,000	23	1.38	Cement (portland), salt, stone (crushed), helium (Grade-A), sand and gravel (construction).
Kentucky	476,000	31	1.20	Stone (crushed), lime, cement (portland), sand and gravel (construction), clays (ball).
Louisiana	379,000	35	0.96	Salt, sulfur (Frasch), sand and gravel (construction), stone (crushed), sand and gravel (industrial).
Maine	88,200	44	0.22	Sand and gravel (construction), cement (portland), stone (crushed), peat, cement (masonry).
Maryland	401,000	33	1.01	Stone (crushed), cement (portland), sand and gravel (construction), cement (masonry), stone (dimension).
Massachusetts	213,000	39	0.54	Stone (crushed), sand and gravel (construction), stone (dimension), lime, clays (common).
Michigan	1,560,000	9	3.94	Cement (portland), iron ore (usable), sand and gravel (construction), magnesium compounds, stone (crushed).
Minnesota	1,600,000	8	4.05	Iron ore (usable), sand and gravel (construction), stone (crushed), sand and gravel (industrial), stone (dimension).
Mississippi	137,000	42	0.35	Sand and gravel (construction), cement (portland), clays (fuller's earth), stone (crushed), clays (bentonite).
Missouri	1,320,000	10	3.33	Stone (crushed), lead, cement (portland), lime, zinc.
Montana	498,000	28	1.26	Copper, gold, cement (portland), palladium metal, molybdenum.
Nebraska	161,000	41	0.41	Cement (portland), sand and gravel (construction), stone (crushed), cement (masonry), clays (common).
Nevada	3,030,000	2	7.66	Gold, copper, silver, sand and gravel (construction), diatomite.
New Hampshire 2/	60,200	47	0.15	Sand and gravel (construction), stone (crushed), stone (dimension), gemstones.
New Jersey	296,000	37	0.75	Stone (crushed), sand and gravel (construction), sand and gravel (industrial), greensand marl, peat.
New Mexico	994,000	13	2.51	Copper, potash (K ₂ O), sand and gravel (construction), cement (portland), perlite (crude).
New York	904,000	16	2.28	Stone (crushed), phosphate rock, sand and gravel (construction), sand and gravel (industrial), clays (common).
North Carolina	758,000	20	1.92	Stone (crushed), cement (portland), sand and gravel (construction), sand and gravel (industrial), clays (common).
North Dakota	31,600	48	0.08	Sand and gravel (construction), lime, clays (common), sand and gravel (industrial), gemstones.
Ohio	984,000	14	2.49	Stone (crushed), sand and gravel (construction), salt, lime, cement (portland).
Oklahoma	411,000	32	1.04	Stone (crushed), cement (portland), sand and gravel (construction), sand and gravel (industrial), iodine (crude).
Oregon	272,000	38	0.69	Sand and gravel (construction), stone (crushed), cement (portland), diatomite, lime.
Pennsylvania 2/	1,240,000	11	3.12	Stone (crushed), cement (portland), lime, sand and gravel (construction), cement (masonry).
Rhode Island 2/	22,600	49	0.06	Sand and gravel (construction), stone (crushed), sand and gravel (industrial), gemstones.
South Carolina	507,000	27	1.28	Cement (portland), stone (crushed), gold, sand and gravel (construction), cement (masonry).
South Dakota	339,000	36	0.86	Gold, cement (portland), stone (crushed), sand and gravel (construction), lime.
Tennessee	786,000	19	1.99	Stone (crushed), zinc, cement (portland), sand and gravel (construction), clays (ball).
Texas	1,700,000	7	4.29	Cement (portland), stone (crushed), sand and gravel (construction), magnesium metal, salt.
Utah	1,760,000	5	4.45	Copper, gold, molybdenum, magnesium metal, sand and gravel (construction).
Vermont 2/	68,200	45	0.17	Stone (dimension), stone (crushed), sand and gravel (construction), talc and pyrophyllite, gemstones.
Virginia	600,000	22	1.51	Stone (crushed), sand and gravel (construction), cement (portland), lime, kyanite.
Washington	522,000	26	1.32	Sand and gravel (construction), magnesium metal, stone (crushed), cement (portland), gold.
West Virginia	190,000	40	0.48	Stone (crushed), cement (portland), sand and gravel (industrial), lime, salt.
Wisconsin	389,000	34	0.98	Stone (crushed), sand and gravel (construction), copper, sand and gravel (industrial), lime.
Wyoming	996,000	12	2.52	Soda ash, clays (bentonite), helium (Grade-A), cement (portland), stone (crushed).
Undistributed	29,800	XX	0.08	
Total	39,600,000	XX	100.00	

p/ Preliminary. XX Not applicable.

1/ Data are rounded to three significant digits; may not add to totals shown.

2/ Partial total; excludes values that must be concealed to avoid disclosing company proprietary data. Concealed values included with "Undistributed."

TABLE 4
VALUE OF NONFUEL RAW MINERAL PRODUCTION PER CAPITA AND PER SQUARE KILOMETER IN 1997, BY STATE p/ 1/

State	Area (square kilometers)	Population (thousands)	Total value (thousands)	Per capita		Per square kilometer	
				Dollars	Rank	Dollars	Rank
Alabama	134,000	4,250	\$805,000	189	15	6,010	21
Alaska	1,530,000	604	942,000	1,560	3	615	49
Arizona	295,000	4,220	3,520,000	834	5	11,900	3
Arkansas	138,000	2,480	535,000	215	13	3,880	28
California	411,000	31,600	2,810,000	89	33	6,840	17
Colorado	270,000	3,750	536,000	143	19	1,990	41
Connecticut	13,000	3,270	64,800 2/	20	49	4,990	25
Delaware	5,290	717	6,490 2/	9	50	1,230	44
Florida	152,000	14,200	1,740,000	123	23	11,500	5
Georgia	153,000	7,200	1,770,000	246	12	11,600	4
Hawaii	16,800	1,190	99,900 2/	84	37	5,960	22
Idaho	216,000	1,160	477,000	410	9	2,200	40
Illinois	146,000	11,800	880,000	74	40	6,030	20
Indiana	93,700	5,800	640,000	110	25	6,820	18
Iowa	146,000	2,840	493,000	174	16	3,380	29
Kansas	213,000	2,570	547,000	213	14	2,570	36
Kentucky	105,000	3,860	476,000	123	22	4,550	26
Louisiana	124,000	4,340	379,000	87	35	3,070	31
Maine	86,200	1,240	88,200	71	41	1,020	47
Maryland	27,100	5,040	401,000	79	38	14,800	1
Massachusetts	21,500	6,070	213,000	35	47	9,950	9
Michigan	152,000	9,550	1,560,000	164	17	10,300	8
Minnesota	219,000	4,610	1,600,000	348	10	7,330	12
Mississippi	124,000	2,700	137,000	51	43	1,110	45
Missouri	181,000	5,320	1,320,000	248	11	7,300	13
Montana	381,000	870	498,000	572	7	1,310	43
Nebraska	200,000	1,640	161,000	99	29	805	48
Nevada	286,000	1,530	3,030,000	1,980	2	10,600	6
New Hampshire	24,000	1,150	60,200 2/	53	42	2,510	37
New Jersey	20,200	7,950	296,000	37	46	14,700	2
New Mexico	315,000	1,690	994,000	590	6	3,160	30
New York	127,000	18,100	904,000	50	44	7,100	16
North Carolina	136,000	7,200	758,000	105	26	5,560	24
North Dakota	183,000	641	31,600	49	45	172	50
Ohio	107,000	11,200	984,000	88	34	9,200	10
Oklahoma	181,000	3,280	411,000	125	21	2,270	39
Oregon	251,000	3,140	272,000	87	36	1,080	46
Pennsylvania	117,000	12,100	1,240,000 2/	102	28	10,500	7
Rhode Island	3,140	990	22,600 2/	23	48	7,200	15
South Carolina	80,600	3,670	507,000	138	20	6,290	19
South Dakota	200,000	729	339,000	465	8	1,700	42
Tennessee	109,000	5,260	786,000	150	18	7,200	14
Texas	691,000	18,700	1,700,000	91	31	2,460	38
Utah	220,000	1,950	1,760,000	902	4	8,010	11
Vermont	24,900	585	68,200 2/	117	24	2,740	34
Virginia	106,000	6,620	600,000	91	32	5,680	23
Washington	176,000	5,430	522,000	96	30	2,960	33
West Virginia	62,800	1,830	190,000	104	27	3,030	32
Wisconsin	145,000	5,120	389,000	76	39	2,670	35
Wyoming	253,000	480	996,000	2,070	1	3,930	27
Undistributed	XX	XX	29,800	XX	XX	XX	XX
Total or average	9,370,000 3/	262,000 3/	39,600,000	151	XX	4,220	XX

p/ Preliminary. XX Not applicable.

1/ Data are rounded to three significant digits; may not add to totals shown.

2/ Partial total; excludes values that must be concealed to avoid disclosing company proprietary data. Concealed values included with "Undistributed."

3/ Excludes Washington, DC (which has no mineral production), with an area of 179 square kilometers and a population of 554,000.

Sources: U.S. Geological Survey and Bureau of the Census.

TABLE 5
NONFUEL RAW MINERAL PRODUCTION 1/ IN THE UNITED STATES, BY STATE 2/

(Thousand metric tons and thousand dollars unless otherwise specified)

Mineral	1995		1996		1997 p/	
	Quantity	Value	Quantity	Value	Quantity	Value
Alabama:						
Cement:						
Masonry	306	30,700	309	32,000 e/	315	33,300 e/
Portland	4,090	285,000	4,330	326,000 e/	4,410	339,000 e/
Clays:						
Bentonite	154	4,700	166	5,060	166	5,060
Common	2,080	18,600	2,290	17,100	2,670	20,500
Fire	80	3,120	52	2,800	53	2,840
Kaolin	373	7,220	254	W	471	W
Gemstones	NA	3,000 r/	NA	2,000	NA	1,980
Lime	1,730	105,000	1,860	116,000	1,880	117,000
Sand and gravel:						
Construction	11,900	49,400	13,800	60,600	13,600	61,300
Industrial	479	5,940	799	8,380	780	8,380
Stone: Crushed	33,600	174,000	38,900	198,000	38,000	200,000
Combined value of bauxite (1995), iron oxide pigments (crude, 1997), salt, stone (dimension limestone and sandstone), and values indicated by symbol W						
Total	XX	6,810	XX	9,930	XX	15,200
	XX	693,000 r/	XX	778,000	XX	805,000
Alaska:						
Gemstones	NA	10	NA	11	NA	10
Gold 3/ 4/ kilograms	4,410	56,000	5,020	61,000	16,300	175,000
Sand and gravel: Construction	13,700	48,500	9,380	35,900	10,000	39,300
Silver 3/ metric tons	109	18,100	W	W	W	W
Stone: Crushed 5/	3,320	20,400	2,600	16,500	2,600	17,000
Zinc 3/ metric tons	321,000	395,000	W	W	W	W
Combined values of copper (1996-97), lead, stone [crushed dolomite, granite, and limestone (1997), crushed dolomite and limestone (1995-96)], zinc, and values indicated by symbol W						
Total	XX	(6/)	XX	499,000	XX	711,000
	XX	538,000 7/	XX	613,000	XX	942,000
Arizona:						
Clays:						
Bentonite	21	W	W	W	W	W
Common	98	449	104	W	91	W
Copper 3/	1,170	3,560,000	1,240	2,980,000	1,230	2,930,000
Gemstones	NA	3,230	NA	2,360	NA	3,220
Gold 3/ kilograms	1,920	23,900	1,740	21,800	W	W
Iron oxide pigments, crude metric tons	68	90	W	W	W	W
Sand and gravel:						
Construction	40,100	201,000	41,900	199,000	40,400	197,000
Industrial	334	2,910	323	2,890	319	3,220
Silver 3/ metric tons	220	36,400	188	31,300	159	22,300
Stone: Crushed	5,520	32,600	6,800	40,600	6,100	38,000
Combined value of cement, gypsum (crude), lime, molybdenum, perlite (crude), pumice and pumicite, salt, stone (dimension sandstone), and values indicated by symbol W						
Total	XX	331,000	XX	308,000	XX	325,000
	XX	4,190,000	XX	3,580,000	XX	3,520,000
Arkansas:						
Clays:						
Common	973	2,920	939	2,390	1,170	2,160
Kaolin	182	4,890	161	W	164	W
Gemstones	NA	4,890	NA	3,050	NA	2,800
Sand and gravel: Construction	11,600	48,300	11,000	43,500	11,900	48,400
Silica stone 8/ metric tons	W	W	398	3,800	NA	NA
Stone:						
Crushed	25,500	169,000	26,400	158,000	27,000	162,000
Dimension	22,000	2,010	W	W	W	W

See footnotes at end of table.

TABLE 5--Continued
NONFUEL RAW MINERAL PRODUCTION 1/ IN THE UNITED STATES, BY STATE 2/

(Thousand metric tons and thousand dollars unless otherwise specified)

Mineral	1995		1996		1997 p/	
	Quantity	Value	Quantity	Value	Quantity	Value
Arkansas--Continued:						
Combined value of bromine, cement, clays (fire), gypsum (crude), lime, sand and gravel (industrial), stone [dimension limestone, marble, and sandstone (1996-97)], tripoli, and values indicated by symbol W	XX	260,000	XX	225,000	XX	320,000
Total	XX	492,000	XX	435,000	XX	535,000
California:						
Asbestos metric tons	10,200	W	9,550	W	9,070	W
Boron minerals	1,190	560,000	1,150	519,000	622 9/	503,000
Cement:						
Masonry	154	11,200	198	14,500 e/	202	15,000 e/
Portland	9,360	565,000	9,910	616,000 e/	10,100	641,000 e/
Clays:						
Bentonite	149	14,000	148	13,900	149	14,100
Common	1,420	14,500	1,340	12,600	1,310	11,700
Fire	11	311	60	W	33	397
Fuller's earth	224	W	224	W	225	33,300
Diatomite	318	W	W	W	W	W
Gemstones	NA	490	NA	507	NA	515
Gold 3/ kilograms	25,600	319,000	23,800	299,000	21,000	230,000
Lime	228	15,600	208	17,800	210	18,000
Rare-earth metal concentrates metric tons	22,200	W	20,400	W	20,000	W
Sand and gravel:						
Construction	98,400	542,000	103,000	583,000	110,000	634,000
Industrial	1,710	38,300	1,760	40,500	1,780	42,300
Silver 3/ metric tons	14	2,240	22	3,610	22	3,140
Stone:						
Crushed	43,700 5/	268,000 5/	46,700	295,000	47,300	308,000
Dimension metric tons	27,300	6,660	28,600	7,020	28,800	7,060
Combined value of clays (kaolin), feldspar, gypsum (crude), iron ore (usable), magnesium compounds, mercury, perlite (crude), potash (1995-96), pumice and pumicite, salt, soda ash, sodium sulfate (natural), stone [crushed dolomite and shell (1995)], talc and pyrophyllite, titanium concentrates [ilmenite (1996-97)], tungsten (1995), and values indicated by symbol W	XX	399,000	XX	408,000	XX	351,000
Total	XX	2,760,000	XX	2,830,000	XX	2,810,000
Colorado:						
Clays:						
Bentonite	(10/)	9	1	19	1	19
Common	288	2,040	317	2,320	283	1,860
Kaolin	6	W	6	W	6	W
Gemstones	NA	245	NA	754	NA	W
Sand and gravel: Construction	34,100	141,000	31,600	133,000	32,400	139,000
Silver 3/ metric tons	W	W	7	1,240	W	W
Stone:						
Crushed	9,000	58,500	9,940	64,900	10,200	70,000
Dimension metric tons	17,800	2,640	23,900	3,330	24,000	3,350
Combined value of cement, gold, gypsum (crude), helium (Grade-A), lead, lime, molybdenum, peat, sand and gravel (industrial), zinc, and values indicated by symbol W	XX	366,000	XX	308,000	XX	322,000
Total	XX	570,000	XX	513,000	XX	536,000
Connecticut:						
Gemstones	NA	5	NA	5	NA	5
Sand and gravel: Construction	6,410	37,500	6,380	26,900	6,210	26,800
Stone: Crushed	6,070 5/	45,500 5/	6,720	55,000	4,600	38,000

See footnotes at end of table.

TABLE 5--Continued
NONFUEL RAW MINERAL PRODUCTION 1/ IN THE UNITED STATES, BY STATE 2/

(Thousand metric tons and thousand dollars unless otherwise specified)

Mineral	1995		1996		1997 p/	
	Quantity	Value	Quantity	Value	Quantity	Value
Connecticut--Continued:						
Combined value of other industrial minerals	XX	9,470	XX	(6/)	XX	(6/)
Total	XX	92,500	XX	81,900 7/	XX	64,800 7/
Delaware:						
Gemstones	NA	1	NA	1	NA	1
Sand and gravel: Construction	2,680	8,740	2,370	6,820	2,200	6,490
Total 7/	XX	8,750	XX	6,820	XX	6,490
Florida:						
Cement:						
Masonry	383	35,200	422	35,200 e/	431	36,600 e/
Portland	3,170	233,000	3,450	245,000 e/	3,510	255,000 e/
Clays:						
Fuller's earth	388	50,800	377	58,900	430	41,900
Kaolin	33	3,510	35	3,760	35	3,770
Gemstones	NA	W	NA	1	NA	1
Peat	294	5,390	298	5,550	244	4,690
Sand and gravel:						
Construction	19,300	69,300	18,500	68,800	19,300	73,500
Industrial	547	6,340	515	6,340	515	6,330
Stone: Crushed	68,000	350,000	73,600 5/	394,000 5/	70,200 5/	380,000 5/
Combined value of clays (common), magnesium compounds, phosphate rock, staurolite, stone [crushed marl (1996-97)], titanium concentrates, zirconium concentrates, and value indicated by symbol W	XX	783,000	XX	947,000	XX	943,000
Total	XX	1,540,000	XX	1,760,000	XX	1,740,000
Georgia:						
Clays:						
Common	1,660	11,200	1,660	11,200	1,890	11,600
Fuller's earth	744	90,100	739	89,200	739	85,000
Kaolin	8,240	1,060,000	8,040	1,050,000	7,690	1,050,000
Gemstones	NA	51	NA	32	NA	594
Sand and gravel:						
Construction	5,780	23,100	6,520	24,500	6,370	24,500
Industrial	574	7,060	313	5,650	314	6,230
Stone:						
Crushed	60,600	373,000	63,400 5/	401,000 5/	65,000 5/	425,000 5/
Dimension metric tons	132,000	27,700	89,600 5/	10,300 5/	90,100 5/	10,400 5/
Combined value of barite, bauxite (1995), cement, feldspar, iron oxide pigments (crude), mica (crude), and stone [crushed marble (1996-97), dimension marble (1996-97)], and talc and pyrophyllite (1997)	XX	102,000	XX	148,000	XX	154,000
Total	XX	1,690,000	XX	1,740,000	XX	1,770,000
Hawaii:						
Cement:						
Masonry	5	501	5	500 e/	5	520 e/
Portland	357	35,500	312	32,000 e/	318	33,200 e/
Gemstones	NA	6/	NA	153	NA	129
Sand and gravel: Construction	405	4,030	W	6/	W	6/
Stone: Crushed	7,450 5/	73,500 5/	6,560	77,500	5,500	66,000
Total 7/	XX	114,000	XX	110,000	XX	99,900
Idaho:						
Antimony metric tons	262	W	242	W	W	W
Clays: Common	1	10	--	--	--	--
Gemstones	NA	346	NA	347	NA	352
Gold 3/ kilograms	8,850	110,000	10,800 r/	135,000 r/	10,300	111,000
Pumice and pumicite metric tons	W	W	159,000	1,340	W	W
Sand and gravel:						
Construction	13,200	43,500	14,700	46,100	16,400	52,800
Industrial	501	8,720	646	8,510	663	8,540

See footnotes at end of table.

TABLE 5--Continued
NONFUEL RAW MINERAL PRODUCTION 1/ IN THE UNITED STATES, BY STATE 2/

(Thousand metric tons and thousand dollars unless otherwise specified)

Mineral	1995		1996		1997 p/	
	Quantity	Value	Quantity	Value	Quantity	Value
Idaho--Continued:						
Silver 3/	metric tons	182	30,200	229	38,300	W
Stone: Crushed 5/		3,210	14,000	3,960	20,200	4,500
Combined value of cement, copper, feldspar, garnet (industrial), lead, lime, molybdenum, perlite [crude (1997)], phosphate rock, stone [crushed miscellaneous, dimension quartzite (1995), dimension quartzite and miscellaneous (1996-97)], vanadium, zinc, and values indicated by symbol W		XX	303,000	XX	242,000	XX
Total		XX	510,000	XX	492,000 r/	XX
Illinois:						
Cement: Portland		2,560	169,000	2,620	181,000 e/	2,670
Clays:						
Common		503	1,220	115	736	128
Fuller's earth		332	W	330	W	330
Fluorspar	metric tons	51,400	W	8,180	W	NA
Gemstones		NA	269	NA	890	NA
Sand and gravel:						
Construction		36,100	147,000	34,600	144,000	37,500
Industrial		4,410	67,500	4,460	66,400	4,490
Stone: Crushed		61,400	335,000	66,500	364,000	70,000
Combined value of barite (1995), copper (1995-96), lead (1995-96), lime, peat, silver (1995-96), tripoli (1995-96), zinc, and values indicated by symbol W		XX	107,000	XX	89,100	XX
Total		XX	828,000	XX	846,000	XX
Indiana:						
Cement: Portland		2,330	143,000	2,350	153,000 e/	2,390
Clays:						
Ball		38	W	38	W	38
Common		877	3,350	1,510	3,500	915
Gemstones		NA	36	NA	3	NA
Peat		17	281	W	W	W
Sand and gravel: Construction		24,900	93,900	24,800	100,000	20,800
Stone:						
Crushed		49,200	234,000 5/	53,700 5/	254,000 5/	55,600 5/
Dimension	metric tons	172,000	31,400	156,000 5/	24,500 5/	157,000 5/
Combined value of cement (masonry), gypsum (crude), lime, sand and gravel (industrial), stone [crushed slate, dimension dolomite (1997-97)], and values indicated by symbol W		XX	82,700	XX	92,800	XX
Total		XX	589,000	XX	628,000	XX
Iowa:						
Cement: Portland		2,340	161,000	2,390	187,000 e/	2,440
Clays: Common		322	1,590	478	1,180	479
Gemstones		NA	57	NA	481	NA
Gypsum, crude		2,240	13,800	2,090	12,800	2,030
Peat		5	77	W	W	W
Sand and gravel: Construction		14,300	57,000	13,300	54,600	12,500
Stone: Crushed		35,300	210,000	34,400	202,000	37,000
Combined value of cement (masonry), lime, sand and gravel (industrial), stone [dimension dolomite and sandstone (1995)], and values indicated by symbol W		XX	12,500	XX	11,100	XX
Total		XX	456,000	XX	470,000	XX
Kansas:						
Cement:						
Masonry		31	2,650	24	2,240 e/	25
Portland		1,730	109,000	1,730	120,000 e/	1,760

See footnotes at end of table.

TABLE 5--Continued
NONFUEL RAW MINERAL PRODUCTION 1/ IN THE UNITED STATES, BY STATE 2/

(Thousand metric tons and thousand dollars unless otherwise specified)

Mineral	1995		1996		1997 p/	
	Quantity	Value	Quantity	Value	Quantity	Value
Kansas--Continued:						
Clays:						
Common	573	2,390	548	2,250	376	1,270
Fuller's earth	48	W	64	W	W	W
Gemstones	NA	W	NA	621	NA	1,000
Helium:						
Crude	30	26,600	W	W	W	W
Grade-A	do.	53	105,000	53	104,000	54
Salt	2,770	113,000	2,950	118,000	3,100	121,000
Sand and gravel: Construction	11,100	29,400	11,500	31,300	10,800	30,100
Stone:						
Crushed	20,400	95,800	22,100	110,000	23,600	118,000
Dimension 5/	metric tons	19,800	1,810	21,400	2,100	21,500
Combined value of gypsum (crude), pumice and pumicite, sand and gravel (industrial), stone (dimension sandstone), and values indicated by symbol W	XX	12,200	XX	40,600	XX	39,300
Total	XX	498,000	XX	530,000	XX	547,000
Kentucky:						
Clays:						
Ball	117	W	70	W	82	6,070
Common	786	3,430	823	3,680	739	3,790
Gemstones	NA	W	NA	5,910	NA	4,580
Sand and gravel: Construction	8,710	31,700	7,310	25,600	7,890	28,300
Stone: Crushed 5/	54,700	230,000	58,500	243,000	64,000	272,000
Combined value of cement, lime, stone [crushed (1995), crushed sandstone (1996-97)], and values indicated by symbol W	XX	167,000	XX	164,000	XX	161,000
Total	XX	432,000	XX	442,000	XX	476,000
Louisiana:						
Clays: Common	384	548	382	548	481	887
Gemstones	NA	175	NA	136	NA	667
Salt	14,700	177,000	15,500	175,000	15,600	171,000
Sand and gravel:						
Construction	11,300	50,200	11,500	53,200	10,700	50,700
Industrial	572	10,500	706	12,100	566	10,900
Stone: Crushed 5/	2,540	26,700	2,290	23,900	1,600	17,000
Combined value of gypsum (crude), lime, stone [crushed miscellaneous (1996-97), crushed shell and miscellaneous (1995)], and sulfur (Frasch)	XX	169,000	XX	128,000	XX	128,000
Total	XX	434,000	XX	393,000	XX	379,000
Maine:						
Gemstones	NA	305	NA	223	NA	227
Peat	15	845	18	960	15	1,000
Sand and gravel: Construction	6,420	26,900	6,440	27,500	10,000	43,800
Stone: Crushed	3,110	16,100	2,760	14,800	3,100	17,200
Combined value of cement, clays (common), and stone (dimension granite)	XX	23,500	XX	25,000	XX	26,000
Total	XX	67,600	XX	68,600	XX	88,200
Maryland:						
Cement: Portland	1,670	101,000	1,610	99,400 e/	1,640	103,000 e/
Clays: Common	278	943	304	874	293	920
Gemstones	NA	1	NA	1	NA	1
Sand and gravel: Construction	9,700	61,700	9,700	61,400	11,200	72,700
Stone:						
Crushed	24,200	158,000	22,400 5/	142,000 5/	25,000 5/	195,000 5/
Dimension	metric tons	20,700	2,260	19,800	2,210	19,900
Combined value of other industrial minerals	XX	(6/)	XX	26,000	XX	26,400
Total	XX	324,000 7/	XX	332,000	XX	401,000

See footnotes at end of table.

TABLE 5--Continued
NONFUEL RAW MINERAL PRODUCTION 1/ IN THE UNITED STATES, BY STATE 2/

(Thousand metric tons and thousand dollars unless otherwise specified)

Mineral	1995		1996		1997 p/	
	Quantity	Value	Quantity	Value	Quantity	Value
Massachusetts:						
Clays: Common	31	W	W	W	W	W
Gemstones	NA	W	NA	1	NA	1
Sand and gravel: Construction	11,700	67,500	14,200	82,500	15,200	90,100
Stone:						
Crushed	11,100	97,400	11,800 5/	91,600 5/	12,500 5/	97,000 5/
Dimension	metric tons 77,600	14,600	79,600	15,000	80,000	15,100
Combined value of lime, peat, sand and gravel [industrial (1996-97)], stone [crushed miscellaneous (1996-97)], and values indicated by symbol W	XX	10,700	XX	11,100	XX	11,300
Total	XX	190,000	XX	200,000	XX	213,000
Michigan:						
Cement:						
Masonry	229	16,700	232	20,400 e/	237	21,200 e/
Portland	5,400	361,000	5,390	397,000 e/	5,500	413,000 e/
Clays: Common	623	3,430	652	3,410	698	8,330
Gemstones	NA	2	NA	1	NA	1
Gypsum, crude	1,510	14,900	1,590	14,400	1,540	11,000
Iron ore, usable	13,500	W	W	W	W	W
Lime	653	34,600	584	30,300	590	30,700
Peat	173	5,510	168	4,650	167	4,090
Sand and gravel:						
Construction	53,500	178,000	53,800	197,000	59,300	222,000
Industrial	2,940	30,600	2,680	29,400	2,720	27,700
Stone: Crushed	37,500	127,000	38,600 5/	144,000 5/	41,000 5/	160,000 5/
Combined values of bromine, copper (1995), iron oxide pigments (crude), magnesium compounds, potash, salt, silver (1995), stone [crushed granite and miscellaneous (1996-97), dimension dolomite and sandstone], and values indicated by symbol W	XX	750,000	XX	695,000	XX	664,000
Total	XX	1,520,000	XX	1,540,000	XX	1,560,000
Minnesota:						
Clays:						
Common	27	W	11	W	W	W
Kaolin	21	W	--	--	--	--
Gemstones	NA	26	NA	148	NA	677
Iron ore, usable	47,000	1,330,000	46,700	1,330,000	46,900	1,330,000
Peat	24	2,070	20	1,540	37	2,610
Sand and gravel: Construction	31,900	99,400	31,800	107,000	46,800	161,000
Stone:						
Crushed	11,300 5/	47,400 5/	12,100	59,000	12,000	60,000
Dimension	metric tons 26,900	11,100	25,400	10,700	25,600	10,800
Combined value of lime, sand and gravel (industrial), stone [crushed quartzite and traprock (1995)], and values indicated by symbol W	XX	40,400	XX	35,100	XX	34,900
Total	XX	1,530,000	XX	1,540,000	XX	1,600,000
Mississippi:						
Clays:						
Ball	73	4,540	73	4,540	73	4,540
Bentonite	164	6,510	145	4,480	156	4,630
Common	616	6,080	534	3,610	566	3,730
Fuller's earth	378	26,900	379	27,800	332	25,200
Gemstones	NA	1	NA	1	NA	1
Sand and gravel: Construction	11,800	53,000	13,400	60,600	12,100	56,300
Stone: Crushed 5/	1,990	8,010	2,180	9,300	1,900	8,300
Combined value of other industrial minerals	XX	25,500	XX	33,500	XX	34,800
Total	XX	131,000	XX	144,000	XX	137,000
Missouri:						
Cement: Portland	4,360	270,000	4,530	293,000 e/	4,620	305,000 e/

See footnotes at end of table.

TABLE 5--Continued
NONFUEL RAW MINERAL PRODUCTION 1/ IN THE UNITED STATES, BY STATE 2/

(Thousand metric tons and thousand dollars unless otherwise specified)

Mineral	1995		1996		1997 p/	
	Quantity	Value	Quantity	Value	Quantity	Value
Missouri--Continued:						
Clays:						
Ball	--	--	13	W	W	W
Common	972	4,810	849	3,250	984	3,370
Fire	359	5,480	223	3,220	217	3,150
Fuller's earth	283	W	283	W	283	W
Copper 3/	7	22,800	W	W	W	W
Gemstones	NA	58	NA	108	NA	650
Sand and gravel: Construction	8,840	32,400	9,820	35,600	9,760	36,200
Stone: Crushed	65,700 5/	305,000 5/	67,000	325,000	71,000	360,000
Combined value of barite, cement (masonry), iron ore (usable), iron oxide pigments (crude), lead, lime, sand and gravel (industrial), silver, stone [crushed granite (1995), dimension granite], zinc, and values indicated by symbol W	XX	495,000	XX	589,000	XX	610,000
Total	XX	1,140,000	XX	1,250,000	XX	1,320,000
Montana:						
Clays: Common	33	90	34	W	34	W
Gemstones	NA	938	NA	1,840	NA	872
Gold 3/ kilograms	12,400	155,000	9,110	114,000	7,900	86,300
Iron ore, usable	5	60	--	--	W	W
Lead 3/ metric tons	8,350	7,790	7,970	8,580	8,000	8,320
Palladium kilograms	5,260	22,000	6,100	25,500	8,340	46,700
Platinum do.	1,590	20,800	1,840	23,500	2,500	31,700
Sand and gravel: Construction	8,870	34,900	9,260	35,800	9,200	36,500
Silver 3/ metric tons	77	12,700	W	W	W	W
Stone: Crushed	2,370 5/	9,920 5/	2,000	8,580	1,900	8,600
Zinc 3/ metric tons	22,700	27,900	19,400	21,900	22,300	39,800
Combined value of cement, clays (bentonite, fire), copper, garnet [industrial (1996-97)], lime, molybdenum, peat, sand and gravel (industrial), stone [crushed quartzite (1995), dimension miscellaneous], talc and pyrophyllite, and values indicated by symbol W	XX	283,000	XX	251,000	XX	239,000
Total	XX	574,000	XX	491,000	XX	498,000
Nebraska:						
Clays: Common	232	1,130	277	1,140	189	601
Gemstones	NA	W	NA	3	NA	3
Lime	20	803	13	553	13	565
Sand and gravel: Construction	13,700	47,100	12,900	44,300	14,300	50,500
Stone: Crushed	6,590	41,800	6,370	39,800	7,000	45,000
Combined value of cement, gemstones, sand and gravel (industrial), and value indicated by symbol W	XX	55,500	XX	62,100	XX	64,500
Total	XX	146,000	XX	148,000	XX	161,000
Nevada:						
Clays:						
Bentonite	6	477	6	580	29	352
Kaolin	W	W	25	W	34	W
Copper 3/	6	19,800	W	W	W	W
Gemstones	NA	306	NA	234	NA	224
Gold 3/ kilograms	210,000	2,620,000	213,000	2,680,000	226,000	2,470,000
Sand and gravel: Construction	22,500	110,000	22,400	113,000	18,200	93,700
Silver 3/ metric tons	693	115,000	605	101,000	676	94,600
Stone: Crushed	2,410	21,400	3,080	25,200	2,900	24,000

See footnotes at end of table.

TABLE 5--Continued
NONFUEL RAW MINERAL PRODUCTION 1/ IN THE UNITED STATES, BY STATE 2/

(Thousand metric tons and thousand dollars unless otherwise specified)

Mineral	1995		1996		1997 p/	
	Quantity	Value	Quantity	Value	Quantity	Value
Nevada--Continued:						
Combined value of barite, brucite, cement (portland), clays (fuller's earth), diatomite, gypsum (crude), lime, lithium minerals, magnesite, mercury, perlite (crude), salt, sand and gravel (industrial), and values indicated by symbol W	XX	180,000	XX	315,000	XX	350,000
Total	XX	3,060,000	XX	3,230,000	XX	3,030,000
New Hampshire:						
Clays: Common	3	16	3	16	--	--
Gemstones	NA	9	NA	6	NA	6
Sand and gravel: Construction	7,190	34,300	7,620	36,500	8,690	42,700
Stone:						
Crushed 5/	2,150	9,150	1,430	8,650	1,800	11,000
Dimension	metric tons	23,000	6,290	29,000	6,500	29,200
Total 7/	XX	49,800	XX	51,700	XX	60,200
New Jersey:						
Clays: Common	82	135	74	125	W	W
Gemstones	NA	1	NA	1	NA	1
Sand and gravel:						
Construction	14,000	80,300	13,200	70,400	18,000	98,500
Industrial	1,760	31,000	1,680	30,300	1,720	30,500
Stone: Crushed	21,000	132,000	21,400	145,000	23,800	163,000
Combined value of other industrial minerals and value indicated by symbol W	XX	(6/)	XX	(6/)	XX	4,040
Total	XX	243,000 7/	XX	246,000 7/	XX	296,000
New Mexico:						
Clays: Common	127	274	32	165	41	129
Copper 3/	250	764,000	256	614,000	W	W
Gemstones	NA	22	NA	54	NA	54
Potash	2,330	209,000	2,430	225,000	2,450	240,000
Pumice and pumicite	metric tons	W	W	102,000	527	W
Sand and gravel: Construction	10,400	50,700	9,880	48,500	9,070	45,600
Silver 3/	metric tons	20	3,300	W	W	W
Stone: Crushed	3,660	18,800	3,480 5/	18,800 5/	2,700 5/	15,000 5/
Combined value of cement (portland), clays (fire), gold, gypsum (crude), iron ore (usable), mica (crude), molybdenum, perlite (crude), salt, stone [crushed quartzite and traprock (1996-97), dimension granite and marble], and values indicated by symbol W	XX	83,900	XX	85,100	XX	693,000
Total	XX	1,130,000	XX	992,000	XX	994,000
New York:						
Cement:						
Masonry	90	7,210	W	W	W	W
Portland	2,530	205,000	2,570	157,000 e/	2,620	163,000 e/
Clays: Common	563	12,500	652	14,000	648	14,000
Gemstones	NA	W	NA	291	NA	337
Salt	4,480	185,000	4,420	203,000	3,610	158,000
Sand and gravel: Construction	27,300	134,000	28,100	145,000	29,500	156,000
Stone:						
Crushed	39,500	204,000	43,600	233,000	47,000	271,000
Dimension	metric tons	32,800	8,440	34,400	8,120	34,600
Combined value of garnet (industrial), gypsum (crude), lead, peat, sand and gravel (industrial), silver, talc and pyrophyllite, wollastonite, zinc, and values indicated by symbol W	XX	130,000	XX	130,000	XX	133,000
Total	XX	886,000	XX	891,000	XX	904,000
North Carolina:						
Clays: Common	2,430	12,500	2,400	12,400	2,550	23,700
Feldspar	metric tons	497,000	18,400	481,000	18,400	481,000

See footnotes at end of table.

TABLE 5--Continued
NONFUEL RAW MINERAL PRODUCTION 1/ IN THE UNITED STATES, BY STATE 2/

(Thousand metric tons and thousand dollars unless otherwise specified)

Mineral	1995		1996		1997 p/	
	Quantity	Value	Quantity	Value	Quantity	Value
North Carolina--Continued:						
Gemstones	NA	4,440	NA	693	NA	581
Mica, crude	74	3,690	62	4,900	56	5,050
Peat	19	340	15	311	11	225
Sand and gravel:						
Construction	10,100	50,100	10,000	50,500	12,800	66,000
Industrial	1,330	21,900	1,500	21,700	1,980	25,800
Stone:						
Crushed	57,300	384,000	57,200	394,000	66,000	460,000
Dimension metric tons	41,100 5/	15,400 5/	37,300	14,300	37,500	14,300
Combined value of clays (kaolin), lithium minerals, olivine, phosphate rock, stone [dimension quartzite, sandstone, slate and miscellaneous (1995)], and talc and pyrophyllite	XX	225,000	XX	172,000	XX	144,000
Total	XX	735,000	XX	690,000	XX	758,000
North Dakota:						
Clays: Common	59	W	59	W	59	W
Gemstones	NA	W	NA	3	NA	3
Sand and gravel: Construction	8,420	23,900	8,320	23,800	8,320	24,400
Combine value of peat, sand and gravel (industrial), and values indicated by symbol W	XX	7,300	XX	7,060	XX	7,160
Total	XX	31,200	XX	30,800	XX	31,600
Ohio:						
Cement: Portland	1,050	72,700	W	W	W	W
Clays:						
Common	1,840	7,560	1,960	7,450	2,020	9,890
Fire	89	3,140	103	3,230	80	3,050
Gemstones	NA	3	NA	153	NA	W
Lime	1,920	117,000	2,020	107,000	2,040	109,000
Sand and gravel:						
Construction	45,300	196,000	46,600	215,000	47,000	222,000
Industrial	1,270	28,800	1,270	29,800	1,270	30,600
Stone:						
Crushed	60,900	265,000	63,600	291,000	69,000	324,000
Dimension metric tons	17,900	1,670	19,800	2,060	19,900	2,070
Combined value of cement (masonry), gypsum (crude), peat, salt, silica stone (1996), and values indicated by symbol W	XX	200,000	XX	314,000	XX	284,000
Total	XX	891,000	XX	969,000	XX	984,000
Oklahoma:						
Cement:						
Masonry	95	7,250	101	8,850 e/	103	9,200 e/
Portland	1,740	110,000	1,750	118,000 e/	1,780	122,000 e/
Clays:						
Common	674	3,580	799	4,090	772	3,550
Fire	--	--	23	W	--	--
Gemstones	NA	W	NA	603	NA	995
Gypsum, crude	2,830	17,000	2,690	16,500	2,610	18,400
Iodine, crude metric tons	1,210	12,500	1,270	14,600	1,330	24,000
Sand and gravel:						
Construction	7,800	25,100	7,910	27,700	9,120	32,700
Industrial	1,250	25,400	1,350	27,200	1,350	27,200
Stone:						
Crushed 5/	31,100	125,000	28,300	117,000	31,500	134,000
Dimension metric tons	9,170 5/	2,350 5/	9,710	2,220	9,760	2,230

See footnotes at end of table.

TABLE 5--Continued
NONFUEL RAW MINERAL PRODUCTION 1/ IN THE UNITED STATES, BY STATE 2/

(Thousand metric tons and thousand dollars unless otherwise specified)

Mineral	1995		1996		1997 p/	
	Quantity	Value	Quantity	Value	Quantity	Value
Oklahoma--Continued:						
Combined value of feldspar, helium [crude, Grade-A (1996-97)], lime, salt, stone [crushed shell and traprock, dimension quartzite and sandstone (1995)], tripoli (1995-96), and values indicated by symbol W	XX	28,700	XX	32,300	XX	36,000
Total	XX	357,000	XX	369,000	XX	411,000
Oregon:						
Clays:						
Bentonite	17	917	33	1,530	34	1,560
Common	222	354	213	154	213	154
Gemstones	NA	4,570	NA	6,730	NA	1,940
Nickel ore	metric tons	1,560	W	1,330	W	-- 11/
Sand and gravel: Construction		18,200	85,000	18,300	86,800	20,900
Stone: Crushed		20,700	95,700	22,000	102,000	20,800
Talc and pyrophyllite	metric tons		W	64	84	W
Combine value of cement (portland), diatomite, emery (1995-96), lime, pumice and pumicite, and values indicated by symbol W	XX	52,500	XX	67,100	XX	68,100
Total	XX	239,000	XX	265,000	XX	272,000
Pennsylvania:						
Cement:						
Masonry	267	21,200	274	28,000 e/	280	29,100 e/
Portland	5,610	355,000	5,670	418,000 e/	5,790	435,000 e/
Clays:						
Common	736	2,430	753	2,420	630	1,960
Kaolin	14	815	14	815	14	815
Gemstones	NA	1	NA	1	NA	1
Lime	1,640	107,000	1,530	105,000	1,550	106,000
Peat	11	294	4	166	8	181
Sand and gravel: Construction		17,100	93,100	15,100	85,600	14,500
Stone:						
Crushed		80,900	492,000	87,400	518,000	93,000
Dimension	metric tons	57,600	12,300	54,300	11,800	54,600
Total 7/	XX	1,080,000	XX	1,170,000	XX	1,240,000
Rhode Island:						
Gemstones	NA	1	NA	1	NA	1
Sand and gravel: Construction	2,790	21,500	1,990	13,300	1,910	13,100
Stone: Crushed	1,250	9,140	1,440	9,680	1,400	9,500
Total 7/	XX	30,700	XX	23,000	XX	22,600
South Carolina:						
Cement:						
Masonry	W	W	286	27,100 e/	292	28,200 e/
Portland	2,210	156,000	2,370	186,000 e/	2,420	193,000 e/
Clays:						
Common	1,220	4,910	1,260	4,860	1,350	5,550
Fire	24	W	24	W	--	--
Kaolin	373	16,800	387	18,100	306	20,600
Gemstones	NA	W	NA	16	NA	16
Peat	W	W	--	--	3	10
Sand and gravel:						
Construction	8,880	29,000	8,780	29,000	9,000	30,500
Industrial	839	20,500	761	19,500	799	19,600
Stone: Crushed	22,000	132,000	23,800	146,000	24,600	155,000
Combined value of gold, manganiferous ore (1995), mica (crude), silver, stone (dimension granite), vermiculite, and values indicated by symbol W	XX	88,700	XX	62,700	XX	54,300
Total	XX	447,000	XX	493,000	XX	507,000

See footnotes at end of table.

TABLE 5--Continued
NONFUEL RAW MINERAL PRODUCTION 1/ IN THE UNITED STATES, BY STATE 2/

(Thousand metric tons and thousand dollars unless otherwise specified)

Mineral	1995		1996		1997 p/	
	Quantity	Value	Quantity	Value	Quantity	Value
South Dakota:						
Clay: Common	136	W	147	W	147	W
Gemstones	NA	173	NA	98	NA	93
Gold 3/ kilograms	17,100	214,000	W	W	W	W
Gypsum, crude	--	--	W	W	44	312
Sand and gravel: Construction	8,730	26,200	8,750	27,700	8,940	29,000
Silver 3/ metric tons	4	668	5	816	5	714
Stone: Crushed	5,420 5/	25,700 5/	5,640	28,700	7,000	36,000
Combined value of cement, feldspar, iron ore (usable), lime, mica (crude), stone [crushed granite and miscellaneous (1995), dimension granite], and values indicated by symbol W	XX	65,300	XX	300,000	XX	273,000
Total	XX	332,000	XX	357,000	XX	339,000
Tennessee:						
Clays:						
Ball	663	29,000	679	29,000	695	32,500
Kaolin	1	W	32	W	--	--
Gemstones	NA	16,900	NA	12,900	NA	W
Sand and gravel:						
Construction	8,020	36,700	8,380	35,300	9,790	42,300
Industrial	918	14,700	747	13,900	721	13,400
Stone: Crushed	52,600	286,000	55,100	305,000	60,000	336,000
Combined value of barite, cement, clays (fuller's earth), copper (1995-96), lead, lime, silver (1995-96), stone (dimension marble), zinc, and values indicated by symbol W	XX	282,000	XX	266,000	XX	362,000
Total	XX	665,000	XX	662,000	XX	786,000
Texas:						
Cement:						
Masonry	202	17,600	216	20,300 e/	220	21,100 e/
Portland	8,090	499,000	8,240	532,000 e/	8,400	553,000 e/
Clays:						
Ball	101	2,800	101	W	W	W
Common	2,320	15,500	2,290	15,000	2,240	18,100
Kaolin	36	7,700	28	W	W	W
Gemstones	NA	353	NA	511	NA	932
Gypsum, crude	1,880	16,200	2,240	12,100	2,150	15,400
Helium:						
Crude million cubic meters	5	4,730	W	W	W	W
Grade-A do.	W	W	W	W	14	27,000
Lime	1,370	85,800	1,360	86,300	1,370	87,100
Salt	9,110	85,000	9,700	88,900	9,700	87,700
Sand and gravel:						
Construction	61,100	271,000	61,300	278,000	53,700	249,000
Industrial	1,600	40,300	1,420	38,200	1,590	47,500
Stone:						
Crushed	81,100	310,000	86,500	341,000	81,200	325,000
Dimension metric tons	54,000	13,300	86,600	21,100	87,000	21,200
Talc and pyrophyllite do.	294,000	5,840	225,000	5,100	249,000	5,800
Combined value of clays [bentonite (1995), fuller's earth], magnesium compounds, magnesium metal, sodium sulfate (natural), sulfur (Frasch), and values indicated by symbol W	XX	301,000	XX	293,000	XX	240,000
Total	XX	1,680,000	XX	1,730,000	XX	1,700,000
Utah:						
Beryllium concentrates metric tons	5,040	6	5,260	6	5,300	6
Clays:						
Bentonite	38	W	W	1,400	45	1,080
Common	386	4,280	298	4,510	401	4,220
Fuller's earth	--	--	W	32	--	--

See footnotes at end of table.

TABLE 5--Continued
NONFUEL RAW MINERAL PRODUCTION 1/ IN THE UNITED STATES, BY STATE 2/

(Thousand metric tons and thousand dollars unless otherwise specified)

Mineral	1995		1996		1997 p/	
	Quantity	Value	Quantity	Value	Quantity	Value
Utah--Continued:						
Gemstones	NA	939	NA	1,150	NA	221
Iron ore, usable	144	1,700	--	--	--	--
Salt	2,160	54,800	1,720	70,400	1,800	67,100
Sand and gravel: Construction	23,800	80,200	24,700	80,500	33,000	110,000
Stone: Crushed	4,140	14,800	4,380	19,100	6,000	27,000
Combined value of cement, copper, gold, gypsum (crude), helium (Grade-A), lime, magnesium compounds, magnesium metal, mercury, molybdenum, phosphate rock, potash, silver, stone dimension quartzite and sandstone), and value indicated by symbol W	XX	1,700,000	XX	1,560,000	XX	1,550,000
Total	XX	1,850,000	XX	1,730,000	XX	1,760,000
Vermont:						
Gemstones	NA	1	NA	1	NA	1
Sand and gravel: Construction	3,220	11,000	3,870	15,200	3,510	14,100
Stone:						
Crushed	4,420	20,700	4,560	22,800	5,100	26,000
Dimension	metric tons	100,000	28,700	99,600	100,000	28,100
Total 7/	XX	60,400	XX	66,000	XX	68,200
Virginia:						
Clays:						
Common	844	3,200	883	3,220	862	3,340
Fuller's earth	46	W	46	W	48	W
Gemstones	NA	W	NA	11	NA	11
Lime	731	41,900	766	45,700	774	46,200
Sand and grave: Construction	9,710	42,300	9,780	45,800	11,300	54,200
Stone: Crushed	55,400	326,000	59,700	351,000	66,000	392,000
Combine value of cement, feldspar, gypsum (crude), iron oxide pigments (crude), kyanite, sand and gravel (industrial), stone [dimension dolomite, slate, and traprock (1995), dimension dolomite, granite, slate, and traprock (1996-97)], talc and pyrophyllite (1996-97), vermiculite, and values indicated by symbol W	XX	101,000	XX	103,000	XX	104,000
Total	XX	515,000	XX	549,000	XX	600,000
Washington:						
Cement: Portland	W	W	1,160	78,900 e/	1,180	82,100 e/
Clays: Common	220	1,040	218	1,070	207	956
Gemstones	NA	53	NA	36	NA	34
Gypsum, crude	--	--	W	W	9	63
Peat	metric tons	2	87	W	W	W
Sand and gravel: Construction	37,700	155,000	37,900	162,000	38,900	170,000
Stone: Crushed	15,800 5/	76,800 5/	15,400	81,400	17,000	90,100
Combined value of cement (masonry) , diatomite, gold, lime, magnesium metal, olivine, sand and gravel (industrial), stone [crushed dolomite, limestone, and marble (1995), dimension miscellaneous], and values indicated by symbol W	XX	350,000	XX	212,000	XX	179,000
Total	XX	582,000	XX	535,000	XX	522,000
West Virginia:						
Clays: Common	184	365	199	369	169	338
Gemstones	NA	1	NA	1	NA	1
Sand and gravel: Construction	1,800	7,650	1,730	7,710	1,830	8,330
Stone: Crushed 5/	11,800	75,000	12,700	78,400	12,600	79,000
Combined value of cement, lime, peat, salt, sand and gravel (industrial), and stone (crushed dolomite, dimension sandstone)	XX	97,700	XX	98,600	XX	102,000
Total	XX	181,000	XX	185,000	XX	190,000

See footnotes at end of table.

TABLE 5--Continued
NONFUEL RAW MINERAL PRODUCTION 1/ IN THE UNITED STATES, BY STATE 2/

(Thousand metric tons and thousand dollars unless otherwise specified)

Mineral	1995		1996		1997 p/	
	Quantity	Value	Quantity	Value	Quantity	Value
Wisconsin:						
Gemstones	NA	65	NA	505	NA	927
Lime	568	33,900	551	32,000	557	32,400
Sand and gravel:						
Construction	32,200	102,000	32,600	105,000	33,500	111,000
Industrial	1,670	33,300	1,660	32,300	1,730	34,400
Stone:						
Crushed	26,000	108,000	26,000	113,000	29,000	128,000
Dimension	metric tons 128,000	14,500	143,000	16,600	144,000	16,700
Combined value of copper, gold, peat, silica stone (1995-96), and silver	XX	124,000	XX	96,800	XX	65,200
Total	XX	416,000	XX	396,000	XX	389,000
Wyoming:						
Clays:						
Bentonite	2,940	89,900	3,030	98,400	3,010	97,900
Common	30	W	30	W	30	W
Gemstones	NA	11	NA	11	NA	12
Sand and gravel: Construction	3,860	17,500	3,420	14,700	3,220	14,100
Stone: Crushed	4,670	27,500	5,180	30,000	4,900	29,000
Combined value of cement (portland), gypsum (crude), (crude), helium (Grade-A), lime, soda ash, and values indicated by symbol W	XX	838,000	XX	935,000	XX	855,000
Total	XX	973,000	XX	1,080,000	XX	996,000
Undistributed:						
Alaska (1995), Connecticut (1996-97), Delaware, Hawaii, Maryland (1995), New Hampshire, New Jersey (1995-96), Pennsylvania, Rhode Island, Vermont	XX	123,000	XX	30,200	XX	29,800

e/ Estimated. p/ Preliminary. r/ Revised. NA Not available. W Withheld to avoid disclosing company proprietary data, value included with "Combined value." XX Not applicable.

1/ Production as measured by mine shipments, sales, or marketable production (including consumption by producers).

2/ Data are rounded to three significant digits; may not add to totals shown.

3/ Recoverable content of ores, etc.

4/ Data collected by State.

5/ Excludes certain stones; kind and value included with "Combined value."

6/ Value excluded to avoid disclosing company proprietary data.

7/ Partial total, excludes values which must be concealed to avoid disclosing company proprietary data. Withheld values included with "Undistributed."

8/ Grindstones, pulpstones, and sharpening stones; excludes mill liners and grinding pebbles.

9/ Weight reported as B₂O₃ and is not comparable to prior years.

10/ Less than 1/2 unit.

11/ Quantity of local ore fed to smelter after rejection of lower grade material. The Nickel Mountain Mine reportedly was idle all of 1997 because of disappointing prices for nickel ore. However, the smelter operated at full capacity. The smelter normally uses lateritic ore imported from New Caledonia in addition to lateritic ore mined on Nickel Mountain. In a normal year, the value reflects the grade of the local ore, the projected average unit customs value for competing ore imported from New Caledonia, and the projected average reported by the London Metal Exchange (\$6,931 per metric ton nickel in 1997).

TABLE 6
NONFUEL RAW MINERAL PRODUCTION IN THE COMMONWEALTH OF PUERTO RICO AND ISLANDS ADMINISTERED BY
THE UNITED STATES 1/ 2/

(Thousand metric tons and thousand dollars unless otherwise specified)

Mineral	1995		1996		1997 p/	
	Quantity	Value	Quantity	Value	Quantity	Value
Puerto Rico:						
Cement: Portland	metric tons	1,410	W	1,550	W	1,580
Lime		23	2,970	38	5,050	38
Salt		--	--	45	1,500	45
Stone: Crushed		15,300	107,000	13,200	52,500	13,200
Combined value of clays (common), sand and gravel (industrial), stone (dimension marble), and values indicated by symbol W		XX	146,000	XX	153,000	XX
Total		XX	256,000	XX	212,000	XX
Administered Islands:						
American Samoa: Stone: Crushed		(3/)	(3/)	--	--	--
Guam: Stone: Crushed		2,060	17,400	1,660	13,800	1,600
Total 4/		XX	17,400	XX	13,800	XX

p/ Preliminary. W Withheld to avoid disclosing company proprietary data; value included with "Combined value" data. XX Not applicable.

1/ Production as measured by mine shipments, sales, or marketable production (including consumption by producers).

2/ Data are rounded to three significant digits; may not add to totals shown.

3/ Withheld to avoid disclosing company proprietary data.

4/ Total does not include values of items withheld.